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ABSTRACT

An attempt to estimate the growth of literacy in India in the next 20 years is presented. Consideration is taken of existing facilities and the likely increase of present literacy programs. The point is made that the expansion of primary education was mainly responsible for the growth of literacy in the country. Estimates presented are based on school enrollment in the past and the anticipated school enrollment in the future up to 1981. Two age groups of 5-9 and 10-14 were chosen for this study. The total number of literates in each age group was broken into its component parts in terms of the school enrollment in the age group in the year 1961 and the previous years in the standard accepted initially as the minimum level for census literacy. Data analysis showed that the number of literates in these age groups calculated from the school enrollments in 1961 and the preceding years fell far below the number of literates as enumerated in the census. It is concluded that completion of the second standard of the primary education in India enables one to achieve literacy of the level laid down by the Census of India. It is also concluded that the bulk of the working force in the country will remain in the same state of illiteracy in the next 20 years as at present, and will require at least another 20 years for achieving 100 per cent literacy of the Census level, if the present conditions are to continue indefinitely in the future. (CK)

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MAGNIT LITERACY IN INDIA 1961–1981

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MAGNITUDE OF ILLITERACY IN INDIA (1961—1981)

K. B. REGE

National Council of
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FOREWORD

IN THE second decade after independence the problem of illiteracy in India has assumed serious proportions both on account of the millions of adult illiterates the country had at the time of independence and the addition of millions of adult illiterates every year since then, in spite of the phenomenal expansion of primary education and an overall increase in literacy by about 14 per cent since 1948. Any attempt to solve such a stupendous problem would require a realistic assessment of the magnitude of the problem as it exists today and the likely size of the problem as the years go by. It was with this objective in view that the Education Commission asked the National Fundamental Education Centre, now the Department of Adult Education of the National Institute of Education, whether it could prepare a paper on the Magnitude of Illiteracy in India 1961-81 using the projection technique for calculating the likely literacy rates every five years during the next 20 years. The Department readily agreed to take up this work not only because it falls within the normal work of the Department but also because of the value in having such a document for various purposes.

The work of preparing the necessary statistics and writing the paper was assigned to Shri K.B. Rege, Lecturer in this Department. He has worked very hard to get the paper ready in time. In this work he had very valuable guidance from Shri J.P. Naik who was then the Member-Secretary of the Education Commission. He was assisted by Shri S.K. Luthra, Senior Research Assistant in the Department.

It is gratifying to note that the Education Commission has accepted the paper and used the data presented in it extensively—a fact which gives a sense of satisfaction to those working in the Department that we could make a humble contribution to the valuable report of the Education Commission.

Eversince the publication of the Report of the Education Commission, this Department has been receiving a number of

requests for this paper and the mimeographed copies which the Department had prepared were soon exhausted. To meet this need, it was decided to print the paper as a book to which Shri J.P. Naik readily gave the necessary permission on behalf of the Education Commission. I take this opportunity to thank Shri Naik and the Education Commission for giving us this opportunity to prepare this document and for the permission to publish it.

I have great pleasure in making this available to the public especially, the educational planners and administrators in the belief that it will be found useful in a number of ways.

T.A. KOSHY

Head of the Department
Department of Adult Education
New Delhi
November 1970

PREFACE

THIS PAPER was prepared in response to an assignment to the Department of Adult Education, National Institute of Education, National Council of Educational Research and Training by the Education Commission of India, 1964-66. The Education Commission needed a basic document covering the future growth of literacy in India without any special efforts and with the existing literacy programmes in the country. A document of this type was of much importance to them as a baseline on which they could base their recommendations concerning the literacy efforts required by the country in the immediate future.

Attempts at preparation of similar documents were made by my professor, the late Shri R.V. Parulekar, the well known Indian educationist, in the years 1934-39 in his books, "Mass Education in India" (1934) and "Literacy in India" (1939). These books had correlated the educational statistics of school attendance with the census statisitcs of adult literacy and had demonstrated the correct relationship between the educational and the census statistics available then. However, many years had passed since then and the Education Commission wanted the latest trends in such correlations and the projections in Adult literacy for the next twenty years based on these correlations.

Present paper is thus the outcome of the departmental assignment to me, which was rather a difficult task for me due to the time limit set by the Commission and the non-availability of the fully reliable data quite readily. However, encouragement from Shri J.P. Naik, the Member—Secretary of the Commission and at present Adviser in the Ministry of Education and Dr. T.A. Koshy, Head of the Department of Adult Education, and a cue from the writings of my professor gave me courage to take up the assignment and finish it in time to their satisfaction.

I am very much grateful to Dr. Koshy, for assigning me this task, which gave me an opportunity to exert my best and to contribute a bit to the field of education in India. I am indebted

to Shri J.P. Naik for inspiring and helping me in getting the relevant data pertaining to school enrolment in India as readily as possible from his statistical division, without which I would not have completed this assignment. I acknowledge with thanks here the assistance given to me in this study by my colleague Shri S.K. Luthra, the Senior Research Assistant in this Department. My thanks are also due to my other colleagues in the Department for their interest in this study.

In the end, I must thank all my friends in the field of education, who have made use of this paper though in mimeographed form, as a reference document in their papers and research studies.

K.B. REGE

Department of Adult Education
New Delhi

CONTENTS

		Page
FOREWORD	...	iii
PREFACE	...	v
Introduction	...	1
Literacy position in the country in 1961	...	2
Purpose of this paper	...	3
Analysis of the literacy composition in 1961 and its purpose	...	4
Results of the analysis	...	5
Conclusions drawn from the analysis	...	7
Assumptions on which the estimates of the literacy growth in the country are based	...	7
Method of calculating the future growth of literacy	...	9
Tables showing the growth of literacy in the coming years	...	14
Concluding remarks	...	15
References	...	16
Tables	...	17

MAGNITUDE OF ILLITERACY IN INDIA
1961-1981

Introduction

IN RECENT years the question of revitalising India's Literacy Programmes has been engaging the attention of educationists, planners and others interested or engaged in Adult Education. Some pertinent questions relating to the eradication of mass illiteracy, the development of functional literacy and linking of literacy with agricultural and industrial production, have emerged in the field of adult education.

The country is now on the verge of completing the Third Five Year Plan, thus completing 15 years of planned process of economic and social development. The three plans emphasised the necessity of increasing agricultural and industrial output in order to raise the gross national product and per capita income and thereby raising the standard of life of the people of this country. Appraisal of those plans has shown that, though well planned, they have many times fallen short of the targets fixed and the results anticipated. The national income has not increased to the extent expected.

One of the reasons for this shortfall in plan achievements appears to be that development of the human material and resources was not sufficient enough to make the people's participation effective, even though this aspect of development was not lost sight of in our Five Year Plans. Although greater emphasis was on the capital investments, these plans did have programmes like Community Development, Plan Publicity and Lok Karya Kshetra Projects for enabling the people to understand the plans and to participate effectively in the various programmes. In particular, Social Education, one of the major programmes, was concerned with mass education, and increasing adult literacy in the country. Adult literacy was considered to be the core activity of Social Education.

However, in spite of these programmes, the All India Census taken in 1961, the year in which the Second Five Year

Plan also came to an end, revealed that the literacy percentage in the country was as low as 24 only for the total population including children below 4 years of age. From this, the literacy percentage among the adult population in the age group 15 to 44 years worked out to 30.6 and among those in the age group 15 to 49 years to 29.5. This showed that 70 per cent of the participants in the development programmes who could have and ought to have been most effective in influencing the pace of development and thereby contributing to the growth of the national output and income, lacked literacy and education, which is essential for understanding the development plans, programmes and processes and thereby for effective participation in them.

Literacy position in the country in 1961

Further details of the actual literacy position in India in the year 1961 are given in Table No. 1 at page 17. This table gives the break-up of the total population of the country in different age groups, the actual number of literates and illiterates and their corresponding percentages in each age group and the contribution of each age group to the total percentage of literacy in the whole country.

Recent studies have shown that literacy and education are two of the major factors involved in the process of urbanization and industrial development and it is increasingly felt that adult literacy is a vital necessity for economic development of a country and hence literacy work needs to be integrated in the developmental processes. The picture with regard to literacy in India, as brought out by the 1961 Census, is not, however, very encouraging in this respect. Only 30 per cent of the total working force in the age group 15 to 50 years had the minimum literacy and education of the level laid down for census purposes.

The problem that vexes the minds of the educational thinkers and workers in the field of adult education is, therefore, how long it will take for this country, with the present rate of growth of population and the low rate of increase in literacy, to attain a substantially high level of literacy. In this connection, it should be noted that in spite of the increase in

literacy percentage in the country, from 1951 to 1961, the absolute number of illiterates has increased due to the faster growth of population.

The problem of liquidating illiteracy in India, therefore, assumes great significance and has to be attacked on two fronts, namely, expansion of primary education and a much bigger programme of adult literacy. Recent increase in literacy percentage in the country is mostly due to the expansion of primary education. The eradication of illiteracy among adults in India can become a manageable task only if universal and compulsory education of children in the age group 6—14 is assured and the inflow of illiterate persons in the age group 14—45 is prevented by an adequate effort in the field of elementary education.

Purpose of this paper

However, before planning any massive programme for liquidating illiteracy, it will be worthwhile to consider, alongwith the present position, the anticipated growth of literacy in the country in the next 20 years taking into account the existing facilities and the likely increase in the programmes in order to find out what more needs to be done, if the goal is to be achieved as early as possible. In this paper, therefore, an attempt is made to estimate the growth of literacy in the country in the years 1961 to 1981 on the basis of the existing situation with regard to enrolment in schools and adult literacy classes and on the assumption that the existing situation will not change very much during the period to which these estimates relate. These estimates are for a period of 20 years starting from 1961, taking the position at the end of the Second Five Year Plan in 1961, as revealed by the 1961 Census in the country as the baseline and synchronise with the completion of four Plan Periods, namely the Third, Fourth, Fifth and Sixth Five Year Plans in 1966, 1971, 1976 and 1981.

As stated earlier, the expansion of primary education was mainly responsible for the growth of literacy in the country. These estimates are based on the school enrolement in the past and the anticipated school enrolement in future upto 1981. Another source, though very small, in the increase of literacy

in the country is the adult literacy work in the Social Education programmes. This source has also been taken into consideration for estimating the literacy increase in the adult age groups beyond 14 years of age.

Analysis of the literacy composition in 1961 and its purpose

The standard of literacy, chosen for making these estimates is the same as prescribed by the Census of India. The Census authorities prescribe that a person, who can read and write a letter, is to be enumerated as a literate. This level of literacy is not based on any definite literacy test of known validity and reliabilty and hence cannot be said to be exact. It was, therefore, found necessary to interpret this level of minimum education received by the literates in the country, as enumerated in the Census, in terms comparable with the different standards in the system of general education. Hence, in order to arrive at some criteria for comparing the census level of literacy with the different standards as existing at present in the system of general education and for fixing its equivalence with a definite standard in elementary education, the analysis of the literacy composition in certain age groups in the year 1961 was resorted to.

Two age groups of 5-9 and 10-14 years were chosen for this purpose as the achievement of literacy in these age groups was a phenomenon that could occur during the previous decade only. In these age groups the achievement of literacy is possible only through primary and secondary education. With the initial hunch that literacy of the census level may be achieved on completion of the third standard of primary education and with the help of trial and error method, the total number of literates in each age group was broken into its component parts in terms of the school enrolemnts in the age group in the year 1961 and the previous years in the standard accepted initially as the minimum level for census literacy a d in those above it. For this purpose, as the census enumeration was carried out almost at the end of the school year, only those children, who were continuing education in the standard accepted as the minimum level necessary and in the standards above it and those children, who had dropped out from the standards above the accepted

minimum level and who were alive in the year 1961, were considered literate.

There would have been at the end of the year under consideration a few dropouts, who might have left school after passing examination of the standard, accepted as the minimum level for census literacy and thereby on completion of the requisite census standard. There would also be a few similar cases, which would have occurred during preceding years. As the number of those who passed the examinations and left schooling would be relatively very small among children in the lower age groups and in lower standards of primary education in comparison with that of those who dropped out due to failures and left school during the year due to other reasons, and all such cases including those during the preceding years might also be compensated for by the comparatively larger number of dropouts, in the year under consideration, from the standard, accepted as the minimum level for census literacy, due to failures and leaving school during the year before the final examination, this number was assumed to be negligible and hence was ignored in the present analysis.

With this analysis and with the initial assumption that literacy of census level may be achieved on completion of the third standard of primary education, the numbers of literate in these age groups calculated thus from the school enrolments in the year 1961 and the preceding years fell far below the numbers of literates as enumerated in the census. For example, the number of literates in the age group 5-9 in the year 1961, calculated thus, came to 74,42,041, whereas that enumerated by the census authorities was 1,28,27,771. Hence, the initial assumption about the achievement of literacy had to be altered and lowered down to the completion of the second standard of primary education.

Results of the analysis

The results of this final and relevant analysis are given in two separate Tables Nos. II and III at page 18 and 19, drawn up separately for each of the age groups chosen for this analysis.

Further explanation regarding the procedure followed in these tables will not be out of place here. The columns 1 and 2

start with the year 1961 and the groups chosen for analysis of population in that year and move in the backward direction to the previous years and the age groups which will finally account for the age groups chosen for the present analysis in the year 1961. Columns 3 and 5 respectively give the enrolments in schools from the second and the third standard onwards in different years, for the age groups worked out for these years, living in the year 1961. The exact number of children living in 1961 was found out by applying "age specific death rates" calculated from the Life Tables 1951-60 published by the Census of India, 1961, Census. Columns 4 and 6 give similar enrolments in the second and the third standards respectively. Column No. 7 gives the total number of dropouts in all standards from the second standards onwards, which were calculated by deducting from the enrolment from II standard onwards in a particular year (col. 3) the enrolment from III standard onwards in the succeeding year (column 5). Same way, the dropouts in the second standard, shown in column No. 8, were obtained by deducting from the enrolment in the second standard in a particular year (column 4) the enrolment in the third standard in the succeeding year (column 6). Column No. 9 gives the total number of dropouts from all the standards above the second which were estimated by deducting the figures in column No. 8 from those of column No. 7. These dropouts were considered literate along with those children, who were already continuing their education in the standards second and above in the year 1961, as per assumptions mentioned before. These numbers of literates for each year accounting for those in each age group chosen from the 1961 Census are shown in the column No. 10. All these population estimates are as those of population living in the year 1961, and are obtained by applying age specific death rates mentioned above.

The estimates, made on the basis of the analysis described above, show that the total numbers of literates in the year 1961 in the age groups 5-9 and 10-14 years are 1,28,72,401 and 2,00,68,287 respectively and they fairly agree with the actual numbers of literates in these age groups as enumerated in 1961 Census, which are 1,28,27,771 and 2,08,38,300 respectively.

Conclusions drawn from the analysis

This leads to the following conclusion. Assuming that failures and dropouts in the second standard, from the school enrolments from the second standard ownwards in the respective age groups in 1961 are compensated for by those who have passed the second standard and left schooling during the preceding years as the cases of children in the lower age groups, who pass the second standard and leave schooling, will be relatively few as compared to the dropouts due to failures and other reasons during the year, the completion of the second standard of the primary education in India enables one to achieve literacy of the level laid down by the Census of India.

Apart from the above conclusion, a few more assumptions are necessary for estimating the growth of literacy in the country in the coming years. Following are the assumptions made for this purpose.

Assumptions on which the estimates of the literacy growth in the country in the years 1966, 1971, 1976 and 1981 are based

1. There will be no admissions to standard I of primary education before completion of five years of age by a child at the start of the academic year so that in the normal course, following may be the educational attainments age-wise.

Standard attained	*Age in which the standard is attained*
I	6+
II	7+
III	8+
IV	9+

Even if there are a few admissions below this age, they may be negligible as compared with the major bulk of admissions in 5+to 9+ age group and, therefore, ignored.

2. Enrolment in standard I will be about 40% of the total enrolment in standards I to IV in a particular year. This

assumption is based on the average of similar enrolments in the years 1951, 1956, 1961 as given below :

Year	*Enrolment in Standard I to IV*	*Enrolment in Standard I*	*Percentage*
1951	17,256,000	6,948,000	40.3
1956	22,764,000	9,959,000	43.8
1961	31,383,000	13,392,000	42.7
Total	71,403,000	30,299,000	42.4

3. Similarly the enrolments in standards II, III, and IV in a particular year will be respectively 25%, 20% and 15% of the total enrolment in the standards I to IV of that year.

4. 20 per cent of the students enrolled in standard II in a year drop out during the year either due to failures or due to leaving school before the completion of the year, assuming that all the students who pass the examination of standard II go to standard III and do not leave school. This assumption is made on the basis of the enrolments in standards II and III in the years 1955-56, 1956-57, 1957-58 and 1958-59.

5. Difference in the enrolments in standard III and IV is assumed to be normally 5% of total enrolment in standard I to IV in a particular year. However, for calculating the exact number of dropouts among the students from standard III onwards of the previous year, the following formula is assumed. Dropouts among the students from standard III onwards of the previous year—difference in the enrolments in standards III and IV in a current year+1/5 (Difference between the enrolment in standard III of the current year and that in the year five years back, assuming that the rise in the enrolment will be uniform and regular).

6. The admissions to Primary Education in standard I beyond 10 years of age will be quite few in future years and may be treated as negligible.

7. On an average, at present about 5 lakhs of adults in the age group 14 to 45 years are made literate in a year in the whole country through social Education and Adult Literacy classes. If the same strategy continues, in a five year period,

5 lakhs of such adults are likely to be made literate. Distribution of such adults in different age groups is assumed as follows :

Age group	*No. of literate adults*
15—19 years	5 lakhs
20—24 years	5 lakhs
25—44 years	15 lakhs

8. Death rates for different age groups in different decades are assumed to be the same as those for the decade 1951-61.

9. The population estimates for future years are as supplied by the Registrar General of India and the estimates regarding the school enrolments in the years 1966, 1971, 1976 and 1981 from the statistical paper No. III on "Enrolments in Educational Institutions 1950-1980", prepared by the Education Commission.

Method of calculating the future growth of literacy

In accordance with the assumptions made above, following method was adopted for calculating the anticipated increase in literacy in the country during the next 20 years. This period was divided into four quinquennial periods, each period coinciding with the respective Five Year Plan periods from the Third Plan onwards ending in the years 1966, 1971, 1976 and 1981 respectively and the literacy increase during such of these periods was calculated separately. The results of these estimates are presented in the form of four Tables Nos. IV, V, VI, and VII, given on pages 20 and 23 which show the literacy position in the country at the end of each period separately according to different age groups in the population.

The eight age groups, into which the population was divided, are 0-4, 5-9, 10-14, 15-19, 20-24, 25-44, 45-59, and 60 and above years of age. The results for the age groups 15-44 and 15-49 years respectively are also worked out and shown separately in the tables in order to highlight the literacy position among the persons, who fall in the adult age group and constitute the major working force of the country.

As regards the actual calculation of the number of literates in each year in each age group, following procedure was followed. In the lower age group up to 14 years of age, the possibility of increase in literacy is only through primary education and hence

all the estimates in these age groups are based on the anticipated enrolments in schools in the years 1966, 1971, 1976 and 1981. According to the directive principles of the state policy in the Constitution of the country, children in the age group up to 14 years are to be admitted in the regular primary schools under free and compulsory education scheme. The enrolment in primary schools, therefore, falls in this age group. Hence in the population below 5 years of age, the enrolment in regular schools will be negligible or almost nil and even if there are few admissions in the private institutions, the children of this age will not be able to achieve literacy of the Census level. This leads to the conclusion that in the population in the age group 0-4 years of age, which has not attained regular school going age, the number of literates will be zero and therefore this age group of population is treated as a group in which literacy is not at all possible.

Starting from the lowest age group, the first appearance of the phenomenon of achievement of literacy of the standard laid down by the Census of India is possible only in the age group 5-9 years, as children in the age group 6 to 11 years, if admitted in primary schools, can complete the second standard of primary education before the completion of 9 years of age. Hence the estimates regarding the growth of literacy actually start with this age group. As literacy in this age group is possible only through primary education, the estimates for this age group are based on the school enrolments alone.

Most of the children of this age group will be in standards I to IV of primary education as assumed before and among these, the literates will be those, who have completed the standard II and also those who have dropped out from the standard III onwards. If the normal course of the educational attainments with rise in age is strictly adhered to, the dropouts from the third standard onwards start only from the year previous to the last year of the particular quinquennial period.

Thus the following formula for finding out the total number of literates in this age group in the last year of a quinquennial period was evolved. Total number of literates in the age group 5-9 years in a year=60% of the total enrolment in standards I to IV in the current year +4% of the difference in the

enrolments in standards I to IV of the current year and that in the year five years previous to it. For the year 1966, for example, this formula can be stated as follows:

Total number of literates in the age group 5-9 years in 1966

$$= \frac{60}{100} \text{ (T.E.) } 1966 - \frac{4}{100} \text{(T.E. 1966—T.E. 1961)}$$

This formula, thus evolved, may need a little explanation. As stated before, literates will be those who have completed the second standard of primary education. The likely number of such children will be equal to the number of those, who have been enrolled in school from the second standard onwards, minus the dropouts in the second standard at the end of the year. The enrolment in school from standard II onwards is assumed to be 60% of the total enrolment in schools up to IV standard and the dropouts in the II standard at the end of a year to be 20% of the enrolment in the II standard of that year, which in turn is assumed to be 25% of the total enrolment. Therefore, the net enrolment from the II standard onwards for the year 1966, which is to be considered as literate, works out to

$$\frac{60}{100}\text{(T.E.) } 1966 - \frac{20}{100} \times \frac{25}{100}\text{(T.E.) } 1966$$

$$= \left(\frac{60}{100} - \frac{5}{100}\right)\text{(T.E.) } 1966 = \frac{55}{100}\text{(T.E.) } 1966$$

To this number must be added the number of those who have dropped out from the III standard onwards during the period. As stated before, these dropouts in this age group start from the last but one year of the period. Applying the formula assumed for this purpose, the number of dropouts for the year 1966 works out to

$$\frac{5}{100} \text{ (T.E.) } 1966 + \frac{1}{5} \text{(Difference in enrolments in the III standard in 1966 and 1961).}$$

$$= \frac{5}{100} \text{ (T.E.) } 1966 + \frac{1}{5} \times \frac{20}{100} \text{ (T.E. 1966—T.E. 1961)}$$

$$= \frac{5}{100} \text{ (T.E.) } 1966 + \frac{1}{25} \text{ (T.E. 1966—T.E. 1961)}$$

Adding these two items together, the total number of literates in the age group 5—9 years in 1966 comes to

$$\frac{55}{100}\text{(T.E.) 1966} + \frac{5}{100}\text{ (T.E.) 1966}$$

$$+ \frac{1}{25}\text{ (T.E. 1966}-\text{T.E. 1961)}^2,$$

i.e. to $\frac{60}{100}$ (T.E.) 1966 + $\frac{4}{100}$ (T.E. 1966—T.E. 1961),

where T.E. denotes the total enrolment in schools in the standards up to the IV.

The number of literates in this age group for each year has been calculated in the same way by applying this formula.

In the age group 10-14 years, the children enrolled in schools will be mostly in standards V to IX and almost all of them will have completed the second standard of primary education. Hence all the children in the age group 10-14 years, who are in schools in a particular year, are assumed to be literate from the Census point of view. Besides these, there will be those, who could not continue their education further but have completed the second standard and thereby achieved the Census standard of literacy while they were in the age group 5-9 years five years back and are living in the year under consideration. Both these groups when added together will give the total number of literates in this age group for that year.

This may be further explained by considering the different steps in the calculations for a particular year, say 1971. The number of literates in the age group 10—14 years in this year will be made up of (*i*) those who are enrolled in educational institutions in standards V to IX in 1971, and (*ii*) those dropouts from schools, who are living in 1971 and who have completed II standard of primary education and thereby achieved literacy of the Census standard, while they were in the age group 5-9 years in the year 1966.

The actual educational enrolment in the age group 10-14 years in the year 1971 was found from the tables of enrolments in educational institutions supplied by the Education Commission and came to 3,09,81,750. To this was added the number of dropouts from schools, who had become literate in the previous quinquennium. Those dropouts came from those literates who had completed the second standard of primary education in

the age group 5-9 years in the year 1966. The total number of literates in the age group 5-9 years in 1966 was 2,79,38,280. By the time this age group came to the age group 10-14 years in 1971, there might have occurred some deaths in this group due to natural causes. By applying the age specific death rates calculated from the Census of India—1961 Census Life Tables 1951-60, these deaths were calculated and deducted from the total number of literates mentioned before. With this deduction, the actual number of literates from the age group 5-9 years in 1966 as living in the year 1971 came to 2,73,23,638. To find out from this number the exact number of dropouts, *i.e.*, of those who could not continue their education beyond the Census standard of literacy, a further deduction was necessary. This deduction was due to those literates, from the standards III and IV in the age group 5-9 years in 1966, who were still continuing their education in standards VIII and IX and were in the age group 10-14 years in 1971. The number of such children came to 79,32,750. With this further deduction, the net number of the literate dropouts or those, who did not continue their education, came to 1,93,90,888. This number when added to the actual educational enrolment in the age group 10-14 years in 1971 gave the total number of literates in the age group 10-14 years in 1971, which came to 5,03,72,638.

Similar procedure was applied in case of other years also.

If it is assumed that the admissions to Primary Education in standard I beyond 10 years of age will be quite few in the future and may therefore be ignored as is done in this paper, the educational enrolment in schools and institutions for higher education will not affect the growth of literacy of the Census standard beyond 14 years of age, as the standard of educational enrolment beyond this age will be quite higher than that required for the present estimates. The only source that increases the number of literates beyond this age is the enrolment in the social education classes, where teaching of literacy skills to the adults of the age group 15 to 45 years is a core activity.

Hence for estimating the number of literates in the age groups beyond 14 years of age, it has been assumed that the

number of literates in these age groups will consist of those who had already achieved literacy in the preceding quinquennia, while they were in the age groups 5 years lower than the present ones, making due allowance for deaths as might have occurred during the period of five years necessary for coming to the present age groups and as were obtained by applying the age specific death rates calculated for the purpose from the Life Tables, and also those new literates, who had achieved literacy through Social Education classes. For example, the number of literates in the age group 15-19 years in the year 1966 will consist of those who had become literate in the age group 10-14 years in 1961 and are living in 1966 and those who had achieved literacy through Social Education classes during the preceding five years. The same procedure is also applied to the other age groups up to 44th year, which is the terminal year for admission in the literacy classes under the Social Education programmes.

In the age groups thereafter, the question of substantial increase in literacy through Social Education does not arise and the procedure becomes further simplified to transferring the literate population from the lower age groups in the preceding quinquennium to the age groups 5 years higher in the quinquennium under consideration, with due allowance for natural deaths in the respective age groups during the period of five years.

Tables showing the growth of literacy in the coming years

As stated before, the results obtained on the basis of the method outlined above are presented in four tables Nos. IV, V, VI and VII at pages 20 to 23 showing the estimated literacy position in India in the years 1966, 1971, 1976 and 1981 respectively. These tables are almost self-explanatory and need no further elaboration.

Besides these four main tables, the last table No. VIII at page 24 gives the summary of the results obtained above in the form of a comparative statement of the estimated increase in literacy in India in the next twenty years from the year 1961 to the year 1981 in different age groups of population in terms of literacy

percentages in each of these groups at the end of each quinquennial period and the contribution of each age group in the total percentage of literacy in the country in these different years.

Concluding remarks

The tables presented above show that with the existing facilities and programmes of General and Social Education, the literacy percentage in the country will be doubled in the next twenty years and its rise will be speedier in the later decade of the period. However, a closer look at these tables, especially that of the comparative statement, will reveal that this whole rise will be mainly due to the increase of literacy in the lower age groups up to 24 years of age, which will naturally be due to the expansion of educational facilities under the regular primary and secondary education programmes. This is evident from the facts that almost 100 per cent literacy will be achieved in the age group 10-14 years by 1976 and that in the 15-19 years of age group by 1981.

However, the literacy percentages in the age groups beyond 24 years of age will remain almost stationary and will not show any substantial increase. It will be also seen that if the whole adult age group right from 15 years to 44 or 49 years of age is considered, literacy percentage in this age group will substantially increase only after the year 1976 and in spite of this increase in the literacy percentage, the absolute number of illiterates will not show, throughout the period under consideration, any sign of substantial decrease. The decrease will be possible only after 1981 as the beginning of this phenomenon is just visible in that year.

This shows that the bulk of the working force in the country will remain in the same state of illiteracy in the next twenty years as at present and will require at least another twenty years, for achieving 100 per cent literacy of the Census level, if the present conditions are to continue indefinitely in future. Therefore, if this group is to be made more alert nnd active, as early as possible, for effective participation in the development

of the country, the need is for an expanded Adult Literacy and Adult Education programme, much more vigorous than at present.

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TABLE I

Auctal Literacy Position in India—1961.

S. No.	Age group	Total population (Actual)	Percentage of total population	No. of literates	Percentage of literates in the respective age groups	Number of illiterates	Percentage of illiterates in the respective age groups	Percetnage of literates in total population	Percentage of illiterates in the total population
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1.	0— 4	6,61,02,638	15.0	—	—	6,61,02,638	100.0	—	15.0
2.	5— 9	6,46,73,950	14.7	1,28,27,771	19.8	5,18,46,188	80.2	2.9	11.8
3.	10—14	4,93,06,185	11.2	2,08,38,300	42.3	2,84,67,885	57.7	4.7	6.5
4.	15—19	3,58,82,536	8.2	1,37,89,131	38.4	2,20,93,405	61.6	3.1	5.1
5.	20—24	3,73,33,553	8.5	1,25,42,340	33.6	2,47,90,213	66.4	2.8	5.7
6.	25—44	11,57,48,366	26.3	3,15,36,553	27.2	8,42,11,813	72.8	7·2	18.1
7.	45—59	4,50,02,103	10.2	98,29,060	21.8	3,51,73,043	78.2	2.2	8.0
8.	60 & above	2,47,12,109	5.6	41,37,284	16.7	2,05,74,825	83.3	0.9	4.7
8 B.	Age not stated	1,76,469	0.4	18,382	10.4	1,58,087	89.6	0.004	0.396
9.	All ages	43,89,36,918	100.0	10,55,18,881	24.0	33,34,18,157	76.0	24.0	76.0
10.	15—14	18,89,63,455	43.0	5,78,68,024	30.6	13,10,95,431	69.4	13.1	29. 9
11.	13—49	20,70,36,455	46.4	6,11,44,377	29.5	14,58,92,078	70.5	13.8	32.6

TABLE II

Analysis of the Literacy Composition in the age group 5-9 years in 1951 on the basis of persons living t.

Year	*Age group*	*Enrolment from II standard*	*Enrolment in II std.*	*Enrolment from III std. onwards*	*Enrolment in III std.*	*Total drop-outs in all stds. (i) passed and left further learning (ii) failures and left schooling (iii) dropouts during the year*	*Dropouts in II std. (i) passed & left school (ii) failures; (iii) dropouts during III std.)*	*Total dropouts from III std. on-wards*	*Total literates*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	5—9	92,94,087	54,30,323	38,63,764	26,95,121	—	—	—	92,94,087
1960	4—8	69,23,076	41,14,457	28,08,619	19,68,395	30,59,312	14,19,336	16,39,976	16,39,976
1959	3—7	48,25,867	28,19,907	20,05,960	13,56,880	20,17,248	8,51,512	11,65,736	11,65,736
1958	2—6	28,56,852	16,68,521	11,88,331	8,13,291	8,50,892	3,11,641	5,39,251	5,39,251
1957	1—5	14,53,363	8,44,982	6,08,381	4,19,756	2,65,032	31,691	2,33,341	2,33,341
1956	0—4	336	331	5	5	—	—	—	—
1955	0—3	509	499	10	10	504	494	10	10
1954	0—2								
1953	0—1								
1952	0—0			All the enrolment above standard II cannot be below the age of 3 years.					
1951	0—								
Total			1,48,79,020		48,27,858	61,92,988	26,14,674	35,78,314	1,28,72,401

TABLE III

Analysis of the Literacy Composition in the age group 10-14 year in 1961 on the basis of persons living in 1961

Year	*Age group*	*Enrolment from II standard*	*Enrolment in II std.*	*Enrolment from III std. onwards*	*Enrolment in III std.*	*Total dropouts in all stds. (i) passed and left school (ii) failures and left schooling (iii) dropouts during the year*	*Dropouts in II std. (i) passed & left school (ii) failures (iii) dropout during II std.*	*Total dropouts from III std. onwards*	*Total literates*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	10—14	1,69,67,556	18,78,121	1,50,89,435	31,45,754	—	—	—	1,69,67,556
1960	9—13	1,42,64,469	25,83,938	1,16,80,531	27,83,575	—	—	—	—
1959	8—12	1,18,58,461	29,87,058	88,71,403	25,20,262	1,77,930	2,03,483	—	—
1958	7—11	95,54,139	32,26,020	63,28,119	22,57,797	6,82,736	7,05,758	—	—
1957	6—10	61,50,762	38,24,193	43,26,569	21,23,540	18,22,643	15,66,396	2,56,247	2,56,247
1956	5—9	64,11,005	38,26,571	25,84,434	17,85,166	20,84,436	17,03,031	3,81,405	3,81,405
1955	4—8	41,34,452	27,47,695	13,86,757	12,92,755	15,50,018	9,62,529	5,87,489	5,87,489
1954	3—7	34,74,085	18,69,805	16,04,280	9,11,360	20,87,328	5,77,050	15,10,278	15,10,278
1953	2—6	20,46,082	11,54,889	8,91,193	5,85,397	4,41,802	2,43,529	1,98,273	1,98,273
1952	1—5	10,83,361	6,10,526	4,72,835	2,83,305	1,92,168	25,129	1,67,039	1,67,039
1951	0—4	34,656	33,446	1,210	1,008	—	—	—	—
Total						90,39,061	59,86,905	31,00,731	2,00,66,287

Remarks: In this age group there is a rise of 8,24,966 in the enrolment from III standard onwards in the year 1961 over the enrolment from II standard onwards in the year 1960 and also a rise of 5,61,816 in the enrolment in std. III of 1961 over the enrolment in II std. of 1960. These additional enrolments may be due to the enrolment in classes from III standard onwards in the recognised or registered schools in the year 1961 of those children who might have been educated privately at home or in unrecognised and unregisterd schools. This tendency is also visible in the years 1958, 1959 and 1960, as is indicated by the nur ers of dropouts in all the classes from II std. onwards, which are smaller than the numbers for dropouts in the second standard alon This fact accounts for the slightly lower estimate of the number of literates in this age group, as this analysis is based purely on the nrolments in the registered and recognised schools as reported in "Education in India", Volume II of the Ministry of Education and does not take into account those children who have been educated private y.

TABLE IV

Estimated Literacy Position in India in 1966

S. No.	*Age group*	*Estimated total population*	*Percentage of total population*	*No. of lieterates*	*Percentage of literates in the respective age groups*	*No. of illiterates*	*Percentage of illiterates in the respective age groups*	*Percentage of literates in the total population*	*Percentage of illiterates in the total population*
1.	0—4	8,07,99,800	16.3	—	—	8,07,99,800	100	—	16.3
2.	5—9	6,84,62,200	13.8	2,79,38,280	40.8	4,05,23,920	59.2	5.6	8.2
3.	10—14	5,69,77,100	11.5	2,62,72,560	46.1	3,07,04,540	53.9	5.3	6.2
4.	15—19	4,89,04,100	9.9	2,08,17,343	42.6	2,80,86,757	57.4	4.2	5.7
5.	20—24	4,20,84,600	8.5	1,38,89,246	33.0	2,81,95,354	67.0	2.8	5.7
6.	25—44	12,32,38,200	24.9	3,51,61,122	28.5	8,80,77,078	71.5	7.1	17.8
7.	45—59	1,97,32,400	10.1	1,23,57,939	24.8	3,73,74,461	75.2	2.5	7.6
8.	60 and above	2,45,82,800	5.0	49,05,133	20.0	1,96,77,667	80.0	1.0	4.0
9.	All ages	49,47,81,200	100.0	14,13,41,623	28.6	35,34,39,577	71.4	28.5	71.5
10.	15—44	21,42,26,900	43.3	6,98,67,711	32.6	14,43,59,189	67.4	14.1	29.2
11.	15—49	23,44,14,000	47.4	7,39,87,024	31.6	16,04,26,976	68.4	15.0	32.4

TABLE V

Estimated Literacy Position in India in 1971

S. No.	Age group	Estimated total population	Percentage of total population	No. of literates	Percentage of literates in the respective age groups	No. of illiterates	Percentage of illiterates in the respective age groups	Percentage of literates	Percentage of illiterates
1.	0—4	8,81,71,800	15.8	—	—	8,81,71,800	10.0	—	15.8
2.	5—9	7,70,66,800	13.7	3,75,09,160	48.7	3,95,57,640	51.3	6.7	7.0
3.	10—14	6,74,64,300	12.1	5,03,72,638	74.7	1,70,91,662	25.3	9.0	3.1
4.	15—19	5,61,40,800	10.0	2,61,15,746	46.5	3,00,25,054	53.5	4.7	5.3
5.	20—24	4,79,08,200	8.6	2,07,13,640	43.2	2,71,94,560	56.8	3.7	4.9
6.	25—44	13,66,65,300	24.4	3,61,74,672	26.5	10,04,90,628	73.5	6.5	17.9
7.	45—59	5,70,96,800	10.2	1,45,76,700	25.5	4,25,20,100	74.5	2.6	7.6
8.	60 and above	2,91,07,900	5.2	59,56,134	20.5	2,31,51,766	79.5	1.2	4.0
9.	All ages	55,96,21,900	100.0	19,14,18,690	34.2	36,82,03,210	65.8	34.4	65.6
10.	15—44	24,07,14,300	43.0	8,30,04,058	34.5	15,77,10,242	65.5	14.8	28.2
11.	15—49	26,38,34,700	47.1	8,78,62,958	33.3	17,59,71,742	66.7	15.7	31.4

TABLE VI

Estimated Literacy Position in India in 1976

S. No.	Age group	Estimated total population	Percentage of total population	Number of literates	Percentage of literates in the respective age groups	Number of illiterates	Percentage of illiterates in the respective age groups	Percentage of literates in the total population	Percentage of illiterates in total population
1.	0—4	9,29,35,700	14.7	—	—	9,29,35,700	100	—	14.7
2.	5—9	8,49,40,400	13.5	4,07,11,116	47.9	4,42,29,234	52.1	6.5	7.0
3.	10—14	7,61,79,900	12.1	7,35,08,888	96.5	26,71,012	3.5	11.6	0.5
4.	15—19	6,66,26,000	10.6	4,96,13,322	74.5	1,70,12,778	25.5	7.9	2.7
5.	20—24	5,51,23,500	8.7	2,58,58,389	46.5	2,92,65,111	53.1	4.1	4.6
6.	25—44	15,29,66,300	24.3	4,48,20,100	29.3	10,81,46,200	70.7	7.1	17.2
7.	45—69	6,63,96,400	10.3	1,60,59,817	24.2	5,03,36,583	75.8	2.5	8.0
8.	60 and above	3,50,33,800	5.6	71,37,922	20.4	2,78,95,878	79.6	1.1	4.5
9.	All ages	63,02,02,100	100.0	25,77,09,604	40.9	37,24,92,496	59.1	40.8	59.2
10.	15—44	27,47,15,900	43.6	12,20,91,811	44.8	15,44,23,089	56.2	19.1	24.5
11.	15—49	30,15,33,900	47.8	12,56,45,083	41.7	17,58,88,817	58.3	19.9	27.9

TABLE VII

Estimated Literacy Position in India in 1981

S. No.	Age group	Estimated total population	Percentage of total population	Number of literates	Percentage of literates, in the respective age groups	Number of literates in the	Percentage of literates in the respective age groups	Percentage of literates in the total population	Percentage of literates in the total population
1.	0—4	8,70,88,200	12.5	—	—	8,70,88,200	100	—	12.5
2.	5—9	9,03,25,000	13.0	4,33,48,831	48.0	4,69,76,169	52.0	6.2	6.8
3.	10—14	8,41,78,800	12.1	8,98,69,670	106.8	—	—	12.9	0.8
4.	15—19	7,54,24,400	10.9	7,21,71,166	95.7	32,53,234	4.3	10.3	0.6
5.	20—24	6,56,58,100	9.4	4,86,74,536	74.1	1,69,83,564	25.9	7.0	2.4
6.	25—44	17,37,42,500	25.0	5,45,36,017	31.4	11,92,06,483	68.6	7.8	17.2
7.	45—59	7,62,81,000	11.0	1,87,56,303	24.6	5,75,24,697	75.4	2.7	8.3
8.	60 and above	4,21,92,900	6.1	92,44,188	21.9	3,29,48,712	78.1	1.3	4.8
9.	All ages	69,48,90,90 0	100.0	33,66,00,711	48.4	35,82,90,189	51.6	48.2	51.8
10.	15—44	31,48,25,000	45.3	17,53,81,719	55.7	13,94,43,281	44.3	25.2	20.1
11.	15—49	34,47,87,000	49.6	18,16,33,820	52.7	16,31,53,180	47.3	26.1	23.5

TABLE VIII

Comparative Statement Showing the Estimated Increase of Literacy in India in Twenty Years from 1961 to 1981

S. No.	Age group of population in years	Percentage of total population					Literacy percentage in the age group					Literacy percentage in the total population				
		1961	1966	1971	1976	1981	1961	1966	1971	1976	1981	1961	1966	1971	1976	1981
1.	0—4	15.0	16.3	15.8	14.7	12.5	—	—	—	—	—	—	—	—	—	—
2.	5—9	14.7	13.8	13.7	13·5	13.0	19.8	40.8	48.7	47.9	48.0	2.9	5.6	6.7	6.5	6.2
3.	10—14	11.2	11.5	12.1	12.1	12.1	42.3	46.1	74.7	96.5	106.8	4.7	5.3	9.0	11.6	12.9
4.	15—19	8.2	9.9	10.0	10.6	10.9	38.4	42.6	46.5	74.5	95.7	3.1	4.2	4.7	7.9	10.3
5.	20—24	8.5	8.5	8.6	8.7	9.4	33.6	33.0	43.2	46.9	74.1	2.8	2.8	3.7	4.1	7.0
6.	25—44	26.3	24.9	24.4	24.3	25.0	27.2	28.5	26.5	29.3	31.4	7.2	7.1	6.5	7.1	7.8
7.	45—53	10.2	10.1	10.2	10.5	11.0	21.8	24.8	25.5	24.2	24.6	2.2	2.5	2.6	2.5	2.7
8.	60 and above	5.6	5.0	5.2	5.6	6.1	16.7	20.0	20.5	20.4	21.9	0.9	1.0	1.2	1.1	1.3
9.	All ages.	100.0	100.0	100.0	100.0	100.0	24.0	28.6	34.0	40.9	48.0	24.0	28.0	34.2	40.9	48.4
10.	15—44	43.0	43.3	43.0	43.6	45.3	30.6	32.6	34.5	43.8	55.7	13.1	14.1	14.8	19.1	25.2
11.	15—49	46.4	47.5	47.1	47.8	49.6	29.5	31.6	33.3	41.7	52.7	13.8	15.0	15.7	19.9	26.1

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